

UNITED STATES DISTRICT COURT
MIDDLE DISTRICT OF TENNESSEE
NASHVILLE DIVISION

TENNESSEE CLEAN WATER NETWORK,
and TENNESSEE SCENIC RIVERS
ASSOCIATION,
Plaintiffs,

v.

TENNESSEE VALLEY AUTHORITY,
Defendant.

No. 3:15-cv-00424
Judge Haynes
Magistrate Judge Griffin

DEFENDANT TENNESSEE VALLEY AUTHORITY'S ANSWER

I. NATURE OF THE ACTION

1. Answering the allegations of paragraph 1, TVA admits that Plaintiffs bring a citizen suit under the Clean Water Act, but denies the allegations in that suit. Except as expressly admitted, the allegations of paragraph 1 are denied.

2. Answering the allegations of paragraph 2, TVA states that its Gallatin Fossil Plant began operations in 1959, more than a decade before the Clean Water Act was enacted, and from its inception handled coal combustion residual disposal by sluicing the ash through settling ponds before discharging excess water to the Cumberland River; after TVA became subject to the federal Clean Water Act in 1972 and the Tennessee Water Quality Control Act in 1984, Gallatin discharged its wastewater in accordance with its NPDES permit. TVA further states that Exhibit 1 to the Complaint is a Flow Schematic Diagram dated May 2009 and therefore does not demonstrate TVA's historical wastewater processing "[d]uring the nearly 60 years" of Gallatin's operations. Except as expressly admitted, the allegations of paragraph 2 are denied.

3. Denied.

4. Denied.

5. Admitted.

6. Denied.

7. Denied.

8. Denied.

9. Denied.

10. Denied.

11. Answering the allegations of paragraph 11, TVA admits that the coal ash ponds at Gallatin were rated in 2009 by TVA staff as having “significant” hazard potential, which does not reflect their actual stability but rather the probable impacts that would result should they fail; specifically, a “significant” hazard indicates that “failure or misoperation results in no probable loss of human life but can cause economic loss, environmental damage, disruption of lifeline facilities, or can impact other concerns.” In EPA’s April 2013 “Coal Combustion Residue Impoundment Round 11 – Dam Assessment Report: Gallatin Fossil Plant Ash Pond / Stilling Pond Complex, TVA,” EPA’s consultant Dewberry concurred with TVA’s “significant” hazard potential classification for the Gallatin ponds. Except as expressly admitted, the allegations of paragraph 11 are denied.

12. Denied.

13. Admitted.

14. Answering the allegations of paragraph 14, TVA admits that more than 60 days have passed since Plaintiffs provided their Notice of Intent to Sue, but denies that the violations identified in the Notice Letter are occurring or are continuing. Except as expressly admitted, the allegations of paragraph 14 are denied.

15. Admitted.

16. Answering the allegations of paragraph 16, TVA admits that the State's Complaint states that its enforcement action is "in response to the Citizens' Groups' 60-day Notice of Violation letter."

17. Answering the allegations of paragraph 17, TVA states that it has worked with Mr. Martineau's former firm, Waller Lansden Dortch & Davis, LLP, on certain matters, including preliminary trial work in the case *North Carolina ex rel. Cooper v. TVA*, 439 F. Supp. 2d. 486 (W.D.N.C. 2006), *rev'd*, 615 F.3d 291 (4th Cir. 2010). TVA further states that the district court's finding that TVA had violated the Clean Air Act was reversed by the Fourth Circuit Court of Appeals. Except as expressly admitted, the allegations of paragraph 17 are denied.

18. TVA is without knowledge to admit or deny the allegations of paragraph 18, and states that Exhibit 4 to Plaintiffs' Complaint speaks for itself. Except as expressly admitted, the allegations of paragraph 18 are denied.

19. Answering the allegations of paragraph 19, TVA admits that Plaintiffs are Intervenors in the State's action in the Davidson County Chancery Court.

20. Answering the allegations of paragraph 20, TVA denies subsections (1) and (2), and admits subsection (3). Except as expressly admitted, the allegations of paragraph 20 are denied.

21. Denied.

II. PARTIES AND STANDING

A. The Conservation Groups and their Members

22. Upon information and belief, TVA admits the allegations of the first sentence of paragraph 22. TVA denies the allegations of the second sentence of paragraph 22. Except as expressly admitted, the allegations of paragraph 22 are denied.

23. TVA admits that such affidavits are attached as Collective Exhibit 5 to the Complaint, but does not admit that those affidavits establish Plaintiffs' standing. Upon information and belief, TVA admits the allegations of the second sentence of paragraph 23. TVA denies the allegations of the third sentence of paragraph 23. Except as expressly admitted, the allegations of paragraph 23 are denied.

24. Upon information and belief, TVA admits the allegations of paragraph 24.

25. Upon information and belief, TVA admits the allegations of paragraph 25.

26. Upon information and belief, TVA admits the allegations of paragraph 26.

27. Upon information and belief, TVA admits the allegations of paragraph 27.

28. Upon information and belief, TVA admits the allegations of paragraph 28.

29. TVA is without knowledge to admit or deny the allegations of the first sentence of paragraph 29. TVA denies the allegations of the second and third sentences of paragraph 29. Except as expressly admitted, the allegations of paragraph 29 are denied.

30. Upon information and belief, TVA admits the allegations of paragraph 30.

31. Denied.

32. Denied.

B. TVA

33. TVA admits the allegations of paragraph 33, but states that the appropriate citation for the TVA Act, as amended, is 16 U.S.C. §§ 831-83lee.

34. TVA admits the allegations of the first sentence of paragraph 34. TVA admits the allegations of the second sentence of paragraph 34 but states that William D. Johnson is TVA's Chief Executive Officer.

35. Answering the allegations of paragraph 35, TVA denies that it falls within the definition of "person" in 33 U.S.C. § 1362(5), but admits that TVA facilities are subject to the

Clean Water Act pursuant to 33 U.S.C. § 1323. Except as expressly admitted, TVA denies the allegations of paragraph 35.

36. TVA admits that the TVA Act at 16 U.S.C. § 83lc(b) provides that TVA “[m]ay sue and be sued in its corporate name.”

III. JURISDICTION AND VENUE

A. Federal Question Jurisdiction

37. Admitted.

38. Admitted.

B. Venue

39. TVA admits the allegations of the first sentence of paragraph 39, denies the allegations of the second sentence of paragraph 39, and, upon information and belief, admits the allegations of the third sentence of paragraph 39. Except as expressly admitted, the allegations of paragraph 39 are denied.

IV. LEGAL BACKGROUND

40. Answering the allegations of paragraph 40, TVA states that the referenced sections of the Clean Water Act speak for themselves.

41. Admitted.

42. Answering the allegations of the first sentence of paragraph 42, TVA admits that this is a partial quote from the cited section of the Clean Water Act. Answering the allegations in the remaining sentences of paragraph 42, TVA states that the cited opinions speak for themselves and these sentences are legal argument to which no response is required. Except as expressly admitted, the allegations of paragraph 42 are denied.

43. Answering the allegations of paragraph 43, TVA states that the cited opinions speak for themselves and paragraph 43 is legal argument to which no response is required. Except as expressly admitted, the allegations of paragraph 43 are denied.

44. Answering the allegations of paragraph 44, TVA states that the cited opinions speak for themselves and paragraph 44 is legal argument to which no response is required. Except as expressly admitted, the allegations of paragraph 44 are denied.

45. Admitted.

46. Denied.

V. FACTUAL BACKGROUND

A. The Gallatin Plant and the Cumberland River

47. Admitted.

48. Admitted.

49. TVA admits the allegations of the first and second sentences of paragraph 49.

Answering the allegations of the third sentence of paragraph 23, TVA states that 235,000 tons of coal ash are not consistently produced each year and that this figure represents the maximum annual value of historical coal ash production since 2006. Answering the allegations of the fourth sentence of paragraph 49, TVA states that coal ash is sluiced to a settling pond on the plant property. Except as expressly admitted, TVA denies the allegations of paragraph 49.

50. Answering the allegations of paragraph 50, TVA admits that the ash ponds are bounded adjacent to the Cumberland River by earthen dikes and states that Gallatin's ponds were not constructed with composite liners. Except as expressly admitted, TVA denies the allegations of paragraph 50.

51. Upon information and belief, TVA admits the allegations of paragraph 51.

52. Upon information and belief, TVA admits the allegations of paragraph 52.

53. Admitted.

54. TVA is without information to admit or deny the allegations of paragraph 54.

A. The Coal Ash Ponds

55. Answering the allegations of paragraph 55, TVA states that it adds water to the coal ash from the Gallatin Plant and sluices it to a settling pond. Except as expressly admitted, the allegations of paragraph 55 are denied.

56. TVA admits the allegations of the first and second sentences of paragraph 56, but states that ash is sluiced to one settling pond. TVA denies the accuracy of Exhibit 5 attached to Plaintiffs' Complaint. Except as expressly admitted, TVA denies the allegations of paragraph 56.

57. Denied.

58. Denied.

59. Denied.

60. Answering the allegations of paragraph 60, TVA admits that these are excerpted, partial quotations from a 92-page TVA report from 1982 which concerned groundwater at twelve TVA fossil plants. Except as expressly admitted, TVA denies the allegations of paragraph 60.

61. Denied.

62. TVA admits that the map reproduced in paragraph 62 is excerpted from a TVA report and that the report states, in part, that the figure depicts site-wide groundwater contours and "a flow field across NRS # 83-1324 that follows topography, peaking at the local highpoint within the rail loop, and flowing out radially towards the Cumberland River." Except as expressly admitted, TVA denies the allegations of paragraph 62.

63. Answering the allegations of paragraph 63, TVA admits that in 1987, after recently installing groundwater monitoring wells, TVA determined that three private wells near

Gallatin had elevated levels of fecal coliform, iron and boron, that TVA sent letters to the Sumner County Health Department and the three landowners informing them of the fecal coliform results because of the health concerns associated with such contamination, but denies that the contamination came from Gallatin. Except as expressly admitted, TVA denies the allegations of paragraph 63.

64. Denied.

65. Denied.

66. Denied.

67. Denied.

68. Answering the allegations of paragraph 68, TVA admits the allegation of the first sentence and admits that the Gallatin plant is located in an area with karst geology, which has had sinkhole activity, but denies the accuracy of the map contained in paragraph 68. Except as expressly admitted, TVA denies the allegations of paragraph 68.

69. Answering the allegations of paragraph 69, TVA admits that it undertook a study and produced a report based on that study dated April 1977, entitled "Magnitude of Ash Disposal Pond Leakage Problem: Gallatin Steam Plant." Except as expressly admitted, TVA denies the allegations of paragraph 69.

70. Answering the allegations of paragraph 70, TVA admits that the quoted language is a partial quotation from a June 13, 1977, memorandum describing an April 1977 report entitled "Magnitude of Ash Disposal Pond Leakage Problem: Gallatin Steam Plant" and states that the report speaks for itself. Except as expressly admitted, TVA denies the allegations of paragraph 70.

71. Answering the allegations of paragraph 71, TVA states that the referenced report states, “The leakage rate is equal to the inflow rate of the ash sluice water into the pond” Except as expressly admitted, TVA denies the allegations of paragraph 71.

72. Answering the allegations of paragraph 72, TVA states that the 1977 report speaks for itself. Except as expressly admitted, TVA denies the allegations of paragraph 72.

73. Denied.

74. Admitted.

75. Answering the allegations of paragraph 75, TVA admits that the coal ash ponds at Gallatin were rated in 2009 by TVA staff as having “significant” hazard potential, which does not reflect their actual stability but rather the probable impacts that would result should they fail; specifically, a “significant” hazard indicates that “failure or misoperation results in no probable loss of human life but can cause economic loss, environmental damage, disruption of lifeline facilities, or can impact other concerns.” TVA denies that EPA made this determination in 2009. Except as expressly admitted, TVA denies the allegations of paragraph 75.

76. TVA denies the allegations of the first sentence of paragraph 76, and states that EPA found “the Gallatin Fly Ash Pond E is rated SATISFACTORY for continued safe and reliable operation” and that “the Bottom Ash Pond A and the system of Stilling Ponds B, C, and D are rated FAIR.” Answering the allegations of the second sentence of paragraph 76, TVA states the EPA concluded that because TVA “has taken the necessary action to replace an existing deficient spillway at Bottom Ash Pond A and to make improvements in the stilling ponds (Pond B, C, and D), for improving the design flood routing through the CCR Complex to prevent overtopping of the dikes, the inadequacy is considered temporary. Upon completion of the new spillway and stilling pond improvements, the CCR Complex will be considered adequate

with respect to hydrologic/hydraulic safety.” Except as expressly admitted, TVA denies the allegations of paragraph 76.

77. Answering the allegations of paragraph 36, TVA states that in a June 13, 2013, letter, EPA stated, “Since these recommendations relate to actions which could affect the structural stability of the CCR management unit(s) and, therefore, protection of human health and the environment, EPA believes their implementation should receive the highest priority.” Except as expressly admitted, TVA denies the allegations of paragraph 77.

78. Denied.

B. The Abandoned Ash Pond: Non-Registered Site #83-1324

79. Answering the allegations of paragraph 79, TVA admits that, until around 1970, TVA placed ash in a facility comprised of a series of ponds beside the Cumberland River, that this facility is now closed, and states that these ponds were not constructed with composite liners. Except as expressly admitted, TVA denies the allegations of paragraph 79.

80. TVA admits that it ceased disposal at Non-Registered Site # 83-1324 around 1970 when the area reached capacity and that the area is closed, and states that the area no longer contains or impounds water and is vegetated, and further states that TVA and TDEC refer to the area as “Non-Registered Site # 83-1324,” which is an identifier assigned by TDEC. Except as expressly admitted, TVA denies the allegations of paragraph 80.

81. Answering the allegations of paragraph 81, TVA admits that the surface area of the Non-Registered Site is estimated to be 73 acres inside the dikes, the height of the Non-Registered Site is estimated to be 25 feet from toe to top of dike, and the Non-Registered Site’s estimated coal ash storage is unknown because the area is closed. Except as expressly admitted, TVA denies the allegations of paragraph 81.

82. Answering the allegations of paragraph 82, TVA admits that it ceased disposal at Non-Registered Site # 83-1324 in approximately 1970 when the area reached capacity, that the area is closed and no longer contains or impounds water, and that TVA developed a closure plan for the Non-Registered Site in 1997 at the request of TDEC. Except as expressly admitted, TVA denies the allegations of paragraph 82.

83. Answering the allegations of paragraph 83, TVA admits that it ceased disposal at Non-Registered Site # 83-1324 in approximately 1970 when the area reached capacity, that the area is closed and no longer contains or impounds water, and that TVA installed monitoring wells and began collecting groundwater data in 2000, but TVA denies that state law authorized or required TDEC to direct TVA to develop a closure plan. Except as expressly admitted, TVA denies the allegations of paragraph 83.

84. Answering the allegations of paragraph 84, TVA admits that TVA's groundwater monitoring in 2002 indicated the presence of beryllium and cadmium at or exceeding Maximum Contaminant Levels (MCLs), and states that, although cobalt was present in amounts exceeding MCLs, TDEC concurred with TVA's assessment that those exceedances were due to naturally occurring background levels of cobalt. Except as expressly admitted, TVA denies the allegations of paragraph 84.

85. Answering the allegations of paragraph 85, TVA denies that state law required TVA to submit a Groundwater Quality Assessment Plan or initiate an assessment of corrective measures. Except as expressly admitted, TVA denies the allegations of paragraph 85.

86. Denied.

87. Denied.

88. Admitted.

89. Answering the allegations of paragraph 89, TVA admits that it installed new groundwater monitoring wells in 2011. Except as expressly admitted, TVA denies the allegations of paragraph 89.

90. Answering the allegations of paragraph 59, TVA admits that a Preliminary Ecological Screening Evaluation of Groundwater Discharges at the Abandoned Ash Disposal Area (Non-Registered Site # 83-1324) at Gallatin yielded measured and modeled concentrations of beryllium, cadmium, nickel, and zinc that “may pose a risk to aquatic biota in the groundwater discharge zone of the Cumberland River [but that] the conservative assumptions required for [the study’s] screening evaluation are likely to overestimate potential risks.” Except as expressly admitted, TVA denies the allegations of paragraph 90.

91. Denied.

92. Denied.

93. TVA is without information to admit or deny the purported sampling results. Except as expressly admitted, TVA denies the allegations of paragraph 93.

94. Denied.

95. Denied.

96. Answering the allegations of paragraph 96, TVA states that it has begun a root cause analysis in response to the groundwater monitoring results. Except as expressly admitted, TVA denies the allegations of paragraph 96.

97. Denied.

C. The Active Ash Pond Complex: Bottom Ash Pond A, Fly Ash Pond E, and Stilling Ponds B, C, and D

98. Answering the allegations of paragraph 98, TVA admits that it ceased disposing ash at the Non-Registered Site in approximately 1970, that the Non-Registered Site is closed, and

that TVA now sluices ash to a settling pond. Except as expressly admitted, TVA denies the allegations of paragraph 98.

99. Admitted.

100. Denied.

101. TVA admits the allegations in the first sentence of paragraph 101. Answering the allegations of the second sentence of paragraph 101, TVA states that the amount of ash produced each year varies, but admits that approximately 185,000 tons of fly ash and 45,000 tons of bottom ash annually are sluiced to Bottom Ash Pond A. Answering the allegations of the third sentence of paragraph 101, TVA states that the earthen dikes at Bottom Ash Pond A are estimated to be between 20-25 feet high and estimated to contain just under 5 million cubic yards of coal ash. Except as expressly admitted, TVA denies the allegations of paragraph 101.

102. Answering the allegations of paragraph 102, TVA states that water from Bottom Ash Pond A flows through buried pipes to Stilling Pond B, then to Stilling Pond C, and then to Stilling Pond D, before discharging to the Cumberland River through NPDES Permit No. TN0005428 Outfall 001. Except as expressly admitted, TVA denies the allegations of paragraph 102.

103. TVA admits the allegations of the first and fourth sentences of paragraph 103. Answering the allegations of the second and third sentences of paragraph 103, TVA states that the dikes at Fly Ash Pond E are partially constructed over fly ash, estimated to be between 25-30 feet high, and estimated to contain just under 5 million cubic yards of coal ash. Except as expressly admitted, TVA denies the allegations of paragraph 103.

104. Denied.

105. Admitted.

106. Denied.

107. Answering the allegations of paragraph 107, TVA states that the original United States Geological Survey map speaks for itself. Except as expressly admitted, TVA denies the allegations of paragraph 107.

108. Admitted.

109. Answering the allegations of the first sentence of paragraph 109, TVA admits that its NPDES Permit No. TN0005428 includes limits on TVA's discharge of Oil & Grease, Total Suspended Solids, and pH from Outfall 001 located at Cumberland River mile 240.5. TVA admits the allegations of the second sentence of paragraph 109. Except as expressly admitted, TVA denies the allegations of paragraph 109.

110. Answering the allegations of paragraph 110, TVA admits that the NPDES permit for the Gallatin plant does not impose numeric limits on the discharge of the constituents listed in paragraph 110 but does contain narrative limits requiring TVA to implement best management practices to address controls on those constituents in ash pond discharges and requires TVA to monitor those constituents and report its monitoring results to TDEC. Except as expressly admitted, TVA denies the allegations of paragraph 110.

111. Answering the allegations of paragraph 111, TVA states that in the past five years, the reported toxic weighted pounds equivalent of aluminum has ranged from 3,044 to 8,951 TWPE; the reported toxic weighted pounds equivalent of arsenic has ranged from 932 to 7,057 TWPE; and the reported toxic weighted pounds equivalent of selenium has ranged from 847 to 4,713 TWPE. TVA further states that on the "Discharge Monitoring Report Pollutant Loading Tool" website where EPA provides the toxic weighting factors, EPA states that a Toxic Weighted Pound Equivalent is a number calculated from Discharge Monitoring Report data and pollutant specific toxic weighting factors and is used to compare the relative toxicities of different pollutant discharges but that "[i]t is important to note that *this value is not a measure of*

risk or potential for human health impacts.” (Emphasis in original.) Except as expressly admitted, TVA denies the allegations of paragraph 111.

112. Denied.

113. Denied.

114. Denied.

115. Admitted.

116. Answering the allegations of paragraph 116, TVA admits that its monitoring wells in the vicinity of the Ash Pond Complex have shown the presence of some amount of metals and other pollutants, but states that the only pertinent regulatory standards are MCLs and/or groundwater protection standards (GWPS) and there have been no exceedances of MCLs or GWPS at those monitoring wells. Except as expressly admitted, TVA denies the allegations of paragraph 116.

117. Denied.

118. Denied.

119. Answering the allegations of paragraph 119, TVA admits that the Gallatin NPDES permit requires daily visual inspections of dams, dikes, and toe areas, and requires TVA to report to TDEC and begin remediation procedures within 24 hours of discovering changes that indicate a potential compromise to the structural integrity of the impoundment. Except as expressly admitted, TVA denies the allegations of paragraph 119.

120. Denied.

121. Denied.

122. Denied.

123. TVA is without information to admit or deny the purported sampling results, and states that it is not aware of an EPA-approved protocol for sampling seeps. Except as expressly admitted, TVA denies the allegations of paragraph 123.

124. Denied.

D. Sampling Results

125. TVA is without information to admit or deny the purported sampling results. Except as expressly admitted, TVA denies the allegations of paragraph 125.

126. Admitted.

127. Answering the allegations of the first sentence of paragraph 127, TVA admits that the groundwater monitoring wells in the vicinity of the Gallatin plant are identified by number, with each well having the prefix “GAF,” but TVA denies the accuracy of Exhibit 6 attached to Plaintiffs’ Complaint. TVA admits the allegations of the second sentence of paragraph 127. Except as expressly admitted, TVA denies the allegations of paragraph 127.

128. Denied.

129. TVA is without information to admit or deny the purported sampling results. Except as expressly admitted, TVA denies the allegations of paragraph 129.

130. TVA is without information to admit or deny the purported sampling results. Except as expressly admitted, TVA denies the allegations of paragraph 130.

131. TVA is without information to admit or deny the purported sampling results. Except as expressly admitted, TVA denies the allegations of paragraph 131.

132. TVA is without information to admit or deny the purported sampling results. Except as expressly admitted, TVA denies the allegations of paragraph 132.

133. TVA is without information to admit or deny the purported sampling results. Except as expressly admitted, TVA denies the allegations of paragraph 133.

134. TVA is without information to admit or deny the purported sampling results.

Except as expressly admitted, TVA denies the allegations of paragraph 134.

135. TVA is without information to admit or deny the purported sampling results.

Except as expressly admitted, TVA denies the allegations of paragraph 135.

136. TVA is without information to admit or deny the purported sampling results.

Except as expressly admitted, TVA denies the allegations of paragraph 136.

137. Answering the allegations of paragraph 137, TVA states that these are summaries of statements that appear in the current Agency for Toxic Substances and Disease Registry (ATSDR) toxicological profile of aluminum, but that the profile also states, among other things, that “[p]eople generally consume little aluminum from drinking water,” that “[o]ral exposure to aluminum is usually not harmful,” and that “[o]bvious signs of damage were not seen in animals after high oral doses of aluminum.” The ATSDR report further states that, if a person is exposed to aluminum, many factors will determine whether that person will be harmed, including the dose (how much), the duration (how long), and how the person comes in contact with it. Except as expressly admitted, TVA denies the allegations of paragraph 137.

138. Answering the allegations of the first, third, and fourth sentences of paragraph 138, TVA states that these are summaries of statements that appear in the current ATSDR toxicological profile of arsenic. The ATSDR report further states that, if a person is exposed to arsenic, many factors will determine whether that person will be harmed, including the dose (how much), the duration (how long), and how the person comes in contact with it. TVA admits the allegations of the second sentence of paragraph 138. Except as expressly admitted, TVA denies the allegations of paragraph 138.

139. Answering the allegations of paragraph 139, TVA states that the current ATSDR toxicological profile of barium and barium compounds states that some studies have shown these

effects, but that the profile also states, among other things, that “[t]he amount of barium found in food and water usually is not high enough to be a health concern.” The ATSDR report further states that, if a person is exposed to barium and barium compounds, many factors will determine whether that person will be harmed, including the dose (how much), the duration (how long), and how the person comes in contact with it. Except as expressly admitted, TVA denies the allegations of paragraph 139.

140. Answering the allegations of paragraph 140, TVA states that the current ATSDR toxicological profile of boron states that “[s]tudies of dogs, rats, and mice indicate that the male reproductive organs, especially the testes, are affected if large amounts of boron are ingested for short or long period of time [but that the] doses that produced these effects in animals are more than 1,800 times higher than the average intake of boron in food by adults in the U.S. population,” that “concentrations [of boron] up to 0.4 mg/L have been found in most drinking water samples,” and that “[b]oron is part of the natural environment and [one will] have some exposure from foods and drinking water.” The ATSDR report further states that, if a person is exposed to boron, many factors will determine whether that person will be harmed, including the dose (how much), the duration (how long), and how the person comes in contact with it. Except as expressly admitted, TVA denies the allegations of paragraph 140.

141. Answering the allegations of paragraph 141, TVA states that the current ATSDR toxicological profile of cadmium summarizes several studies with equivocal results from long-term exposure to cadmium or exposure to acute levels of cadmium and states “[f]or the U.S. population, cadmium exposure through the drinking water supply is of minor concern.” The ATSDR report further states that, if a person is exposed to cadmium, many factors will determine whether that person will be harmed, including the dose (how much), the duration (how

long), and how the person comes in contact with it. Except as expressly admitted, TVA denies the allegations of paragraph 141.

142. Answering the allegations of paragraph 142, TVA admits that iron levels above the secondary MCL can produce a rusty color, reddish or orange staining, a metallic taste, or sedimentation, but denies that water containing iron becomes “unusable” as a result of certain cosmetic or aesthetic effects. Except as expressly admitted, TVA denies the allegations of paragraph 142.

143. Answering the allegations of paragraph 143, TVA states that exposure to high lead levels can affect the nervous system and that, although EPA has determined that lead is a probable human carcinogen, the current ATSDR toxicological profile of lead states that there is “no conclusive proof that lead causes cancer (is carcinogenic) in humans” and that “very little lead is found in lakes, rivers, or groundwater used to supply the public with drinking water” and that “more than 99% of all publicly supplied drinking water contains less than 0.005 parts of lead per million parts of water (ppm).” The ATSDR report further states that, if a person is exposed to lead, many factors will determine whether that person will be harmed, including the dose (how much), the duration (how long), and how the person comes in contact with it. Except as expressly admitted, TVA denies the allegations of paragraph 143.

144. Answering the allegations of the first and third sentences of paragraph 144, TVA states that the current ATSDR toxicological profile of manganese states that inhalation of very high levels of manganese by workers in mines and factories has been shown to affect the nervous system and that nervous system disturbances have been observed in animals after being given very high oral doses of manganese. The ATSDR report further states that, if a person is exposed to manganese, many factors will determine whether that person will be harmed, including the dose (how much), the duration (how long), and how the person comes in contact with it.

Answering the allegations of the second sentence of paragraph 144, TVA admits that such manganese concentrations can discolor water, give water a metallic taste, and cause black staining, but denies that water containing manganese becomes “unusable.” Except as expressly admitted, TVA denies the allegations of paragraph 144.

145. Answering the allegations of the first sentence of paragraph 145, TVA states that the current ATSDR toxicological profile of nickel states that “exposure to nickel may cause dermatitis in some sensitized people” and that “cancer of the lung and nasal sinus has occurred in people who have breathed dust containing certain nickel compounds while working in nickel refineries or nickel-processing plants [but that the] levels of nickel in these workplaces were much higher than usual (background) levels in the environment.” The ATSDR report further states that, if a person is exposed to nickel, many factors will determine whether that person will be harmed, including the dose (how much), the duration (how long), and how the person comes in contact with it. TVA admits the allegations of the second sentence of paragraph 145, but states that EPA has reported that “[t]here is no evidence that nickel has the potential to cause cancer from lifetime exposures in drinking water.” Except as expressly admitted, TVA denies the allegations of paragraph 145.

146. Answering the allegations of the first sentence of paragraph 146, TVA states that EPA conducted studies “to examine the association between consumption of tap water continuing high levels of sulfates and reports of osmotic diarrhea in susceptible populations (infants and transients, i.e., those acutely exposed) [but was] unable to conduct a study of infants [and] did not find a significant dose-response association between acute exposure to sodium sulfate in tap water (up to 1200 mg/L) and reports of diarrhea [but] did find a weak (not statistically significant) increase in reports of diarrhea at the highest dose level when it was compared to the combined lower doses.” Answering the allegations of the second

sentence of paragraph 146, TVA admits that EPA has established a secondary MCL of 250 mg/L for sulfates in drinking water “based on aesthetic effects (i.e., taste and odor)” and has recommended a health-based advisory for acute effects of 500 mg/L. Except as expressly admitted, TVA denies the allegations of paragraph 146.

147. Answering the allegations in the first sentence of paragraph 147, TVA admits that 40 C.F.R. § 401.15 lists selenium as a toxic pollutant, and states that the current ATSDR toxicological profile of selenium states that “[a]s shown by affected populations in China, chronic dietary exposure to . . . excess levels of selenium [10-20 times more than normal] has caused . . . selenosis [but that] studies of people living in areas of naturally occurring high selenium concentrations in the United States have not revealed adverse health effects in those populations.” The ATSDR report further states that, if a person is exposed to selenium, many factors will determine whether that person will be harmed, including the dose (how much), the duration (how long), and how the person comes in contact with it. TVA admits that the allegations in the second and third sentences of paragraph 147 appear in a 2009 report entitled, “Coal Combustion Waste Is a Deadly Poison to Fish,” but is without information to admit or deny the substance of those allegations. Except as expressly admitted, TVA denies the allegations of paragraph 147.

148. Answering the allegations in the first sentence of paragraph 148, TVA admits that 40 C.F.R. § 401.15 lists thallium as a toxic pollutant and states that the current ATSDR toxicological profile of thallium states that adverse health effects can result if large amounts of thallium are eaten or drunk for short periods of time but that “[n]o information was found on health effects in humans after exposure to smaller amounts of thallium for longer periods.” Answering the allegations in the second sentence of paragraph 148, TVA admits that the 1992 ATSDR profile reports such findings, but states that the profile also reports

“[n]o studies were located regarding reproductive effects in humans after inhalation, oral, or dermal exposure to thallium.” The ATSDR report further states that, if a person is exposed to thallium, several factors will determine whether that person will be harmed, including the dose (how much), the duration (how long), and how the person comes in contact with it.

Except as expressly admitted, TVA denies the allegations of paragraph 148.

149. TVA admits that the allegations of paragraph 149 appear in a 2010 report entitled “Coal Ash: The toxic threat to our health and environment,” but is without information to admit or deny the substance of those allegations. Except as expressly admitted, TVA denies the allegations of paragraph 149.

150. Denied.

VI. CAUSES OF ACTION

A. UNAUTHORIZED DISCHARGES THROUGH HYDROLOGIC FLOW INTO WATERS OF THE UNITED STATES

151. Answering the allegations of paragraph 151, TVA states that the cited statutory section and the district court opinion speak for themselves. Except as expressly admitted, the allegations of paragraph 151 are denied.

152. Denied.

153. Answering the allegations of paragraph 153, TVA states that the cited Federal Register notices speak for themselves. Except as expressly admitted, the allegations of paragraph 153 are denied.

154. Answering the allegation in the first sentence of paragraph 154, TVA states that the cited EPA report speaks for itself but concerns a site unrelated to the Gallatin site. TVA denies the allegations in the second sentence of paragraph 154. Except as expressly admitted, the allegations of paragraph 154 are denied.

155. Answering the allegations in paragraph 155, TVA states that the cited EPA response to comment speaks for itself but concerns a site and operations unrelated to the Gallatin site or the operations at the Gallatin site. Except as expressly admitted, the allegations of paragraph 155 are denied.

156. Answering the allegations in paragraph 156, TVA states that the cited EPA NPDES permit fact sheet speaks for itself but concerns an unidentified site in Louisiana that is unrelated to the Gallatin site. Except as expressly admitted, the allegations of paragraph 156 are denied.

157. Answering the allegations of paragraph 157, TVA states that the cited EPA report, statutory excerpt and Ninth Circuit opinion speak for themselves, but concern sites and operations unrelated to the Gallatin site. Except as expressly admitted, the allegations of paragraph 157 are denied.

158. Answering the allegations of paragraph 158, TVA states that the cited opinions speak for themselves and that paragraph 158 is legal argument to which no response is required. Except as expressly admitted, the allegations of paragraph 158 are denied.

159. Answering the allegations of paragraph 159, TVA states that the cited opinions speak for themselves and that paragraph 159 is legal argument to which no response is required. Except as expressly admitted, the allegations of paragraph 159 are denied.

160. Answering the allegations in the first and second sentences of paragraph 160, TVA states that the cited opinions speak for themselves and the allegations are legal argument to which no response is required. TVA denies the third sentence of paragraph 160. Except as expressly admitted, the allegations of paragraph 160 are denied.

161. Denied.

B. IMPROPER USE OF SINKING CREEK, A WATER OF THE UNITED STATES, AS A WASTEWATER TREATMENT FACILITY.

162. Answering the allegations of the first sentence of paragraph 162, TVA admits that Old Hickory Lake is a water of the United States but states that it is without knowledge to admit or deny whether Sinking Creek is a water of the United States. Answering the allegations of the second sentence of paragraph 162, TVA admits that this is an accurately quoted excerpt from the cited regulation but states that the cited regulation speaks for itself. Except as expressly admitted, the allegations of paragraph 162 are denied.

163. Upon information and belief, TVA admits the allegations of the first and second sentences of paragraph 163. TVA is without knowledge to admit or deny the allegations of the third and fourth sentences. Answering the allegations of the fifth sentence of paragraph 163, TVA states that the currently-active ash ponds were constructed after the Gallatin plant began operations but before the Clean Water Act was passed in 1972. Except as expressly admitted, the allegations of paragraph 163 are denied.

164. Answering the allegations of paragraph 164, TVA admits that Old Hickory Lake is a water of the United States but states that it is without knowledge to admit or deny whether Sinking Creek is a water of the United States and that the cited Fourth Circuit opinion speaks for itself. Except as expressly admitted, the allegations of paragraph 164 are denied.

165. Answering the allegations of paragraph 165, TVA admits that Old Hickory Lake is a water of the United States but states that it is without knowledge to admit or deny whether Sinking Creek is a water of the United States. Except as expressly admitted, the allegations of paragraph 165 are denied.

166. Denied.

167. Denied.

168. Answering the allegations of paragraph 168, TVA admits that NPDES Permit No. TN0005428 does not impose numeric limits on the waste streams that are sent to the active ash pond complex. Except as expressly admitted, the allegations of paragraph 168 are denied.

169. Denied.

170. Answering the allegations of paragraph 170, TVA states that the cited statutes and public laws speak for themselves and that the paragraph is legal argument to which no response is required. Except as expressly admitted, the allegations of paragraph 170 are denied.

171. Answering the allegations of paragraph 171, TVA states that discharges permitted under NPDES Permit No. TN0005428 have continued after the date of the filing of this lawsuit. Except as expressly admitted, the allegations of paragraph 171 are denied.

C. ABANDONED ASH POND VIOLATIONS

172. Denied.

173. Denied.

174. TVA admits that the cited section of the Clean Water Act permits the imposition of civil penalties of \$37,500 per day for violations of the Act or its implementing regulations, but denies that TVA is subject to civil penalties or that TVA has committed violations of the Act or its implementing regulations. Except as expressly admitted, the allegations of paragraph 174 are denied.

175. Denied.

D. ASH POND COMPLEX VIOLATIONS

176. Answering the allegations of paragraph 176, TVA states that the cited statute speaks for itself and denies that there are unpermitted discharges from the Gallatin ash ponds. Except as expressly admitted, the allegations of paragraph 176 are denied.

177. Denied.

178. Denied.

179. TVA admits that the cited section of the Clean Water Act permits the imposition of civil penalties of \$37,500 per day for violations of the Act or its implementing regulations, but denies that TVA is subject to civil penalties or that TVA has committed violations of the Act or its implementing regulations. Except as expressly admitted, the allegations of paragraph 179 are denied.

180. Denied.

E. NPDES PERMIT VIOLATIONS

181. Denied.

a. NPDES Permit Part I.A., Subsection (b)

182. Admitted.

183. Denied.

184. Denied.

185. Denied.

186. Denied.

b. NPDES Permit Part I.A., Subsection (c)

187. Admitted.

188. Denied.

c. NPDES Permit Part II., Subsection 4.a

189. TVA admits that this is an accurately quoted excerpt from the cited subsection of Gallatin's NPDES Permit.

190. Answering the allegations of paragraph 190, TVA admits that the coal ash ponds at Gallatin were rated in 2009 by TVA staff, not EPA, as having "significant" hazard potential, which does not reflect their actual stability but rather the probable impacts that would result

should they fail; specifically, a “significant” hazard indicates that “failure or misoperation results in no probable loss of human life but can cause economic loss, environmental damage, disruption of lifeline facilities, or can impact other concerns.” Except as expressly admitted, the allegations of paragraph 190 are denied.

191. TVA denies the allegations of paragraph 191, and states that EPA found “the Gallatin Fly Ash Pond E is rated SATISFACTORY for continued safe and reliable operation” and that “the Bottom Ash Pond A [and the system of] Stilling Ponds B, C, and D [are] rated FAIR.” TVA further states the EPA concluded that because TVA “has taken the necessary action to replace an existing deficient spillway at Bottom Ash Pond A and to make improvements in the stilling ponds (Pond B, C, and D), for improving the design flood routing through the CCR Complex to prevent overtopping of the dikes, the inadequacy is considered temporary. Upon completion of the new spillway and stilling pond improvements, the CCR Complex will be considered adequate with respect to hydrologic/hydraulic safety.” Except as expressly admitted, TVA denies the allegations of paragraph 191.

192. Answering the allegations of paragraph 192, TVA states that in a June 13, 2013, letter, EPA stated, “Since these recommendations relate to actions which could affect the structural stability of the CCR management unit(s) and, therefore, protection of human health and the environment, EPA believes their implementation should receive the highest priority.” Except as expressly admitted, TVA denies the allegations of paragraph 192.

193. Denied.

194. Denied.

195. Denied.

196. TVA is without information to admit or deny the allegations of paragraph 196.

Except as expressly admitted, TVA denies the allegations of paragraph 196.

197. Denied.

198. Denied.

d. NPDES Permit Part II.C., Subsection (2)

199. Admitted.

200. Denied.

201. Denied.

e. NPDES Permit Part II.C., Subsection (3)

202. TVA admits that these are accurately quoted excerpts from subsections (a) and (b) of the Part II.C.(3) of Gallatin's NPDES permit.

203. Answering the allegations of paragraph 203, TVA states that Gallatin's NPDES Permit speaks for itself. Except as expressly admitted, TVA denies the allegations of paragraph 203.

204. Denied.

205. Denied.

206. Denied.

207. Denied.

208. TVA admits that the cited section of the Clean Water Act permits the imposition of civil penalties of \$37,500 per day for violations of the Act or its implementing regulations, but denies that TVA is subject to civil penalties or that TVA has committed violations of the Act or its implementing regulations. Except as expressly admitted, the allegations of paragraph 208 are denied.

All allegations not heretofore admitted, explained, or denied are denied generally and put in issue.

ANSWER TO PRAYER FOR RELIEF

TVA denies that Plaintiff is entitled to the relief requested, or to any relief.

AFFIRMATIVE DEFENSES

First Defense

TVA is immune from civil penalties under the Clean Water Act.

Second Defense

To the extent there were any violations of the Clean Water Act, they have been remediated.

Third Defense

TVA's discharges at Gallatin are authorized by a permit issued by TDEC to TVA.

Fourth Defense

The Clean Water Act permit shield provision, 33 U.S.C. § 1342(k), shields TVA from liability for the alleged discharges.

Fifth Defense

TVA has sovereign immunity and may not be sued except to the extent that its immunity has been waived by Congress.

Sixth Defense

Plaintiffs' lawsuit fails to state a claim pursuant to 33 U.S.C. § 1365(b)(1)(B).

Seventh Defense

Plaintiffs' claims are barred by the applicable statute of limitations.

Eighth Defense

Plaintiffs are collaterally estopped from asserting any claims regarding the validity of Gallatin's NPDES permit.

Ninth Defense

Plaintiffs' claims are barred by the doctrine of laches.

Tenth Defense

Plaintiffs' claims are barred, in whole or in part, because Plaintiffs' lack standing to assert them.

Eleventh Defense

Plaintiffs' claims are barred, in whole or in part, because their November 10, 2014, notice of intent to sue letter fails to comply with applicable regulations, including 40 C.F.R. § 135.2 and 40 C.F.R. § 135.3.

Twelfth Defense

Plaintiffs' claims are barred, in whole in part, because they relate to alleged wholly past violations, and do not adequately allege the presence of any ongoing violations.

Thirteenth Defense

Plaintiffs' claims are barred, in whole or in part, because they relate to discharges from non-point sources.

Fourteenth Defense

Plaintiffs' claims are barred, in whole or in part, because they constitute an improper collateral attack on a permit issued by the State of Tennessee.

Fifteenth Defense

Plaintiffs' claims are barred, in whole or in part, because the ponds at Gallatin are not "waters of the United States" under the Clean Water Act.

Sixteenth Defense

TVA reserves the right to assert such other and additional defenses available to it at such time and to such extent as is warranted and as may be revealed through disclosure, discovery and the factual development in this matter.

Respectfully submitted,

s/Maria V. Gillen

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CERTIFICATE OF SERVICE

I certify that the foregoing document was filed electronically through the Court's ECF system on the date shown in the document's ECF footer. Notice of this filing will be sent by operation of the Court's ECF system to all parties as indicated on the electronic filing receipt. Parties may access this filing through the Court's ECF system.

s/Maria V. Gillen

Attorney for Tennessee Valley Authority